deferring reconstruction of the object until requested to perform reconstruction by the program.

22. The method of claim 21, further comprising:

reconstructing the object using code identified in the stream, when requested to perform reconstruction by the program.

23. A method in a data processing system for transmitting an object from a first RPC mechanism to a second RPC mechanism that is used by a program, comprising:

forming a stream out of the object by the first RPC mechanism;

sending the stream to the second RPC mechanism by the first RPC mechanism;

receiving the stream by the second RPC mechanism; and

deferring reconstruction of the object by the second RPC mechanism until requested to perform the reconstruction by the program.

24. The method of claim 23, further comprising the step, performed by the second RPC mechanism, of:

reconstructing the object using code identified in the stream, when requested to perform reconstruction by the program.

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25. A method in a data processing system for transmitting an object from a first RPC mechanism to a second RPC mechanism, comprising:

forming a stream out of the object by the first RPC mechanism;

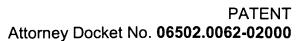sending the stream from the first RPC mechanism to the second RPC mechanism;

storing the stream by the second RPC mechanism; and

deferring reconstruction of the object by the first RPC mechanism until the stream is returned from the second RPC mechanism to the first RPC mechanism in response to the occurrence of an event.

26. The method of claim 25, further comprising:

reconstructing the object by the first RPC mechanism using code identified in the stream.

27. A method for processing objects in a distributed system comprised of multiple machines, comprising:

receiving a stream containing an identifier of an event listener and a self-describing form of an object associated with a request for notification of a particular event within the distributed system; and

in response to occurrence of the particular event, sending the stream to the

identified event listener for reconstruction of the object using program

code identified in the stream.

28.   The method of claim 27, wherein the stream is received from the event listener.

29.   The method of claim 27, wherein the stream is received from a machine other

than the event listener.

30.   An apparatus for processing objects in a data processing system comprising:

a module configured to

receive an object in a form of a stream from a remote RPC mechanism,

and

defer reconstruction of the object until requested to perform reconstruction

by the program.

31.   The apparatus of claim 30, further comprising:

a module configured to reconstruct the object using code identified in the stream,

when requested to perform reconstruction by the program.

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32. An apparatus for transmitting an object from a first RPC mechanism to a second

RPC mechanism that is used by a program, comprising:

a module configured to form a stream out of the object by the first RPC

mechanism;

a module configured to send the stream to the second RPC mechanism by the

first RPC mechanism;

a module configured to receive the stream by the second RPC mechanism; and

a module configured to defer reconstruction of the object by the second RPC

mechanism until requested to perform the reconstruction by the program.

33. The apparatus of claim 32, further comprising:

a module configured to reconstruct the object using code identified in the stream,

when requested to perform reconstruction by the program.

34. An apparatus for transmitting an object from a first RPC mechanism to a second

RPC mechanism, comprising:

a module configured to form a stream out of the object by the first RPC

mechanism;

a module configured to send the stream from the first RPC mechanism to the

second RPC mechanism;

a module configured to store the stream by the second RPC mechanism; and

a module configured to defer reconstruction of the object by the first RPC

mechanism until the stream is returned from the second RPC mechanism

to the first RPC mechanism in response to the occurrence of an event.

35. The apparatus of claim 34, further comprising:

a module configured to reconstruct the object by the first RPC mechanism using

code identified in the stream.

36. An apparatus for processing objects in a distributed system comprised of

multiple machines, comprising:

a module configured to receive a stream containing an identifier of an event

listener and a self-describing form of an object associated with a request

for notification of a particular event within the distributed system;

a module configured to send, in response to occurrence of the particular event,

the stream to the identified event listener for reconstruction of the object

using program code identified in the stream.

37. The apparatus of claim 36, wherein the receiving module receives the stream

from the event listener.

38. The apparatus of claim 36, wherein the receiving module receives the stream from a machine other than the event listener.

39. A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having an RPC mechanism used by a program, the method comprising the steps performed by the RPC mechanism of:

   receiving an object in a form of a stream from a remote RPC mechanism; and

   deferring reconstruction of the object until requested to perform reconstruction by the program.

40. A computer-readable medium containing instructions for controlling a data processing system to perform a method, the method for transmitting an object from a first RPC mechanism to a second RPC mechanism that is used by a program, the method comprising the steps of:

   forming a stream out of the object by the first RPC mechanism;

   sending the stream to the second RPC mechanism by the first RPC mechanism;

   receiving the stream by the second RPC mechanism; and

   deferring reconstruction of the object by the second RPC mechanism until requested to perform the reconstruction by the program.

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41.   An apparatus for providing notification of an event in a distributed system,

comprising:

    a transmitting machine configured to

        specify an object associated with a request for notification of the event,

        and

        form a stream out of the object;

    an event generator configured to, upon receipt of the stream, store the stream,

        and

        in response to occurrence of the event, output the stream; and

    an event listener configured to, upon receipt of the stream from the event

        generator,

        reconstruct the object by accessing program code identified in the stream.

42.   An apparatus for deferring reconstruction of an object in a distributed system,

comprising:

    a transmitting machine configured to

        specify an object,

        form a stream out of the object, and

        send the stream to an intermediate machine;

    the intermediate machine configured to

        receive the stream from the transmitting machine,

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